



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,019	12/16/2005	Johnson Oyama	P18387US2	1263
27045	7590	07/17/2008	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			PHAM, LUU T	
			ART UNIT	PAPER NUMBER
			2137	
			MAIL DATE	DELIVERY MODE
			07/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,019	Applicant(s) OYAMA, JOHNSON	
	Examiner LUU PHAM	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/23/2007 and 12/16/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the application 10/595,019 filed on 12/16/2005.
2. Claims 1-50 have been examined and are pending.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, 8, 12-13, 24, 26, 31, and 35-36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 8, and 10-11 of copending Application No. 10/595,014. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claims 1, 3, 8, 10, and 11 of Patent Application No. 10/595,014 contain(s) every element of claim(s) 1, 3, 8, 12-13, 24, 26, 31, and 35-36 of the instant application and as such anticipate(s) claim(s) 1, 2, 8, 12-13, 24, 26, 31, and 35-36 of the instant application.

“A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). “ ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 25-50 are rejected under 35 U.S.C. 101** as being directed to non-statutory subject matter.

- **Regarding claim 25**, the claim is not directed to eligible subject matter in view of *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007). The claim recites “*means for transferring*,” which do not require integrating a machine (e.g., a computer), or constitute a process of manufacture, or altering a composition of matter. There is no further disclosure in the specification as to how the aforementioned “*means for*” are implemented. Therefore, the nature of the subject matter claimed may reasonably be construed as a mental process since the language of claim 25 broadly encompasses non-tangible embodiments.

- **Regarding claim 47**, the claim is not directed to eligible subject matter in view of *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007). The claim recites “*means for assigning*” and “*means for distributing*,” which do not require integrating a machine (e.g., a computer), or constitute a process of manufacture, or altering a composition of matter. There is no further disclosure in the specification as to how the aforementioned “*means for*” are implemented. Therefore, the nature of the subject matter claimed may reasonably be construed as a mental process since the language of claim 47 broadly encompasses non-tangible embodiments.

- **Regarding claims 26-46 and 48-50**, claims 26-46 and 48-50 are also directed to non-statutory subject matter for the same reasons.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 24-50 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite.

- **Regarding claims 24 and 42**, claims 24 and 42 have been found in valid as indefinite because the claims recite “*means for*” languages and there is no structure disclosed in the specification. “*If there is no structure in the specification corresponding to the means-plus-function limitation in the claims, the claims will be found invalid as indefinite.*” *Biomedino, LLC vs. Waters Technology Corp.*, 490 F.3d 946, 950 (Fed. Cir. 2007)

- **Regarding claims 25-41 and 43-50**, claims 25-41 and 42-50 are dependent on claims 24 and 42 respectively, and therefore inherit the 35 U.S.C 112, second paragraph issues of the independent claims.

- **Regarding claim 47**, the claim recites the phrase “*distributing credential-related data for security association establishment between the mobile node and the home agent to the mobile node and the home agent, respectively.*” (Emphasis added). This is vague as to how the mobile node could distribute credential-related data to itself. Similarly, this is unclear as to how the home agent could distribute credential-related data to itself.

For the purpose of applying art, the Examiner interprets the aforementioned phrase to mean
*“distributing credential-related data for security association establishment between the
mobile node and the home agent to the home agent and the mobile node, respectively.”*
(Emphasis added).

Claim Objections

8. **Claims 11 and 14 are objected to** because of the following informalities:

- **Claim 11 is objected to** because the acronym ‘TLV’ is used without spelling out in full at its first occurrence in the claim.
- **Claim 14 is objected to** because the acronym “PANA” and “PPP” are used without spelling out in full at its first occurrence in the claim.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. **Claims 1-10, 12-17, 19-33, 35-40, and 42-50 are rejected under 35 U.S.C. 102(a)** as being anticipated by Faccin et al., (hereinafter “Faccin”), “Diameter Mobile IPv6 Application, draft-le-aaa-diameter-mobileipv6-6-03.txt,” Internet Draft, XP015004098, published in April 2003.

- **Regarding claim 1**, Faccin discloses a method of authentication and authorization support for Mobile IP version 6 (MIPv6) (*page 1, section 1, pars. 05-06*), comprising:

transferring between a mobile node (*page 3; mobile node at mn@xyz.com*) in a visited network (*page 3; AAAv server at abc.com*) and a home network of the mobile node (*page 3; AAAh server at xyz.com*), MIPv6-related authentication and authorization information in an authentication protocol in an end-to-end procedure transparent to the visited network over an Authentication, Authorization and Accounting (AAA) infrastructure (*pages 3, 11, 20, and 27; the AAA client allows the MN to register and be authenticated by the network service provider; by providing identity and authentication information to the local network which then uses a AAA infrastructure to validate user*).

- **Regarding claim 2**, Faccin discloses the method of claim 1, wherein the authentication protocol is an extended authentication protocol (*page 2, pars. 01-02*).

- **Regarding claim 3**, Faccin discloses the method of claim 1, wherein the end-to-end procedure is between the mobile node and an AAA server in the home network and nodes in the visited network act as mere pass-through agents in the end-to-end procedure (*pages 16 and 27*).

- **Regarding claim 4**, Faccin discloses the method of claim 3, further comprising transferring MIPv6-related information from the AAA server in the home network to a home agent (*page 3; communication (4) exchanged from Home Agent and AAAh Server*).

- **Regarding claim 5**, Faccin discloses the method of claim 1, wherein the MIPv6-related information further comprises MIPv6 configuration information (*page 7, section 4.4; page 17, section 8*).
- **Regarding claim 6**, Faccin discloses the method of claim 5, wherein the MIPv6-related information is transferred over the AAA infrastructure for immediate or future establishment of a MIPv6 security association between the mobile node and the home agent (*page 5, section 4.2; page 12, section 7.3.1; page 18, section 8.2*).
- **Regarding claim 7**, Faccin discloses the method of claim 5, wherein the MIPv6-related information is transferred over the AAA infrastructure for establishing a binding for the mobile node in the home agent (*pages 5-6, sections 4.2-4.3*).
- **Regarding claim 8**, Faccin discloses the method of claim 2, wherein the extended authentication protocol is an extended Extensible Authentication Protocol (EAP) and the MIPv6-related authentication and authorization information is incorporated as additional data in the EAP protocol stack (*page 5, section 4.1; page 10, section 6.2; pages 22-24; sections 9.3-9.5*).
- **Regarding claim 9**, Faccin discloses the method of claim 8, wherein the MIPv6-related information is transferred in at least one EAP attribute in the EAP protocol stack (*page 5, section 4.1; page 10, section 6.2; pages 22-24; sections 9.3-9.5*).

- **Regarding claim 10**, Faccin discloses the method of claim 9, wherein the MIPv6-related information is transferred as EAP attributes of the method layer in the EAP protocol stack (*page 5, section 4.1; page 10, section 6.2; pages 22-24; sections 9.3-9.5*).
- **Regarding claim 12**, Faccin discloses the method of claim 9, wherein the MIPv6-related information is transferred in a generic container attribute available for any EAP method (*pages 9-10; sections 6.1-6.3; the IPv6 mobile node should be able to use different authentication methods such as the different EAP types; the EAP data could be sent as an extension to ICMPv6 messages, carried using the protocol defined by the PANA EG or any other protocol*).
- **Regarding claim 13**, Faccin discloses the method of claim 9, wherein the MIPv6-related information is transferred in a method-specific generic container attribute of the method layer in the EAP protocol stack (*pages 9-10; sections 6.1-6.3; pages 14-15; section 7.5-7.6*).
- **Regarding claim 14**, Faccin discloses the method of claim 1, wherein the authentication protocol between the mobile node and an AAA client in the visited network is carried by a protocol selected from the group of PANA, IEEE 802.1X, and PPP (*page 5, section 4.1; page 10, section 6.2; the EAP data could be sent as an extension to ICMPv6 messages, carried using the protocol defined by the PANA WG or any other protocol*).
- **Regarding claim 15**, Faccin discloses the method of claim 3, wherein the authentication protocol is carried by an AAA framework protocol application between the

AAA client in the visited network and the AAA server in the home network (*pages 3 and 13-16; sections 7.4 and 7.6*).

- **Regarding claim 16**, Faccin discloses the method of claim 4, wherein the MIPv6-related information is transferred from the AAA server in the home network to the home agent in an AAA framework protocol application (*pages 3 and 15-16; sections 7.6 and 7.7*).

- **Regarding claim 17**, Faccin discloses the method of claim 16, wherein the home agent is a local home agent in the visited network and the M IPv6-related information is transferred from the AAA home server to the local home agent via an AAA server in the visited network (*pages 3 and 5-6; sections 4.1-4.2*).

- **Regarding claim 19**, Faccin discloses the method of claim 4, further comprising:

assigning, at the AAA home network server, a home agent to the mobile node (*pages 26-27; section 9.5.2*); and

distributing credential-related data for security association establishment between the mobile node and the home agent from the AAA home network server to the mobile node and the home agent, respectively (*pages 24-28; sections 9.5.1-9.5.2 and 9.6*).

- **Regarding claim 20**, Faccin discloses the method of claim 3, further comprising assigning a home address to the mobile node at the AAA home network server (*pages 26-27; section 9.5.2*).

- **Regarding claim 21**, Faccin discloses the method of claim 20, further comprising configuring the home address of the mobile node using the roundtrips of a selected EAP procedure (*pages 5-6, sections 4.1-4.2; page 15, section 7.6*).

- **Regarding claim 22**, Faccin discloses the method of claim 19, further comprising:

building, at the mobile node, a home address for the mobile node using at least a portion of the address of its assigned home agent (*page 12, section 7.3.1; pages 15-16, section 7.6; page 20-21, section 9.2.1*); and

transferring the home address of the mobile node from the mobile node to the AAA home network server using around trip of a selected EAP procedure (*page 12, section 7.3.1; page 2-21, section 9.2.1*).

- **Regarding claim 23**, Faccin discloses the method of claim 20, further comprising, transferring the home address of the mobile node from the AAA home network server to the home agent using an AAA framework protocol application (*pages 24-27; section 9.5*).

- **Regarding claims 24-33**, claims 24-33 are similar in scope to claims 1-10, respectively, and are therefore rejected under similar rationale.

- **Regarding claims 35-40**, claims 35-40 are similar in scope to claims 12-17, respectively, and are therefore rejected under similar rationale.

- **Regarding claims 42-46**, claims 42-46 are similar in scope to claims 19-23, respectively, and are therefore rejected under similar rationale.
- **Regarding claim 47**, Faccin discloses an AAA home network server for authentication and authorization support for Mobile IP version 6(MIPv6) (*page 1, section 1, pars. 05-06*), comprising:
 - means for assigning a home agent to a mobile node (*pages 5-6, section 4.2; page 17, section 8.1; pages 26-27; section 9.5.2*); and
 - means for distributing credential-related data for security association establishment between the mobile node and the home agent to the mobile node and the home agent, respectively (*pages 20-27, section 9.2.1-9.2.2, and 9.3-9.5*).
- **Regarding claim 48**, Faccin discloses the server of claim 47, further comprising means for assigning a home address to the mobile node (*pages 26-27; section 9.5.2*).
- **Regarding claim 49**, Faccin discloses the server of claim 48, further comprising means for configuring the home address of the mobile node using the roundtrips of a selected EAP procedure (*pages 5-6, sections 4.1-4.2; page 15, section 7.6*).
- **Regarding claim 50**, Faccin discloses the server of claim 48, further comprising means for transferring the home address of the mobile node to the home agent using an AAA framework protocol application (*page 12, section 7.3.1; page 2-21, section 9.2.1*).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
13. **Claims 11, 18, 34, and 41 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Faccin, as applied to claims 1 and 24 above, and further in view of Akhtar et al., (hereinafter “Akhtar”), U.S. Patent No. 7,079,499, filed on September 07, 2000.

- **Regarding claim 11**, Faccin discloses the method of claim 10.

Faccin does not explicitly disclose the EAP attributes are EAP TLV attributes.

However, in an analogous art, Akhtar discloses a mobility architecture framework, wherein the EAP attributes are EAP TLV attributes (*col. 88, lines 4-10*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Akhtar with the method and system of Faccin, wherein the EAP attributes are EAP TLV attributes to provide a communication architecture for enabling IP-based mobile communications (*col. 1, lines 56-58*).

- **Regarding claim 18**, Faccin discloses the method of claim 15.

Faccin does not disclose the AAA framework protocol application is an application of a protocol selected from the group of Diameter, and RADIUS.

However, in an analogous art, Akhtar discloses a mobility architecture framework, wherein the AAA framework protocol application is an application of a protocol selected from the group of Diameter, and RADIUS (*col. 26, lines 1-7; col. 27, lines 1-5; col. 31, lines 36-42*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Akhtar with the method and system of Faccin, wherein the AAA framework protocol application is an application of a protocol selected from the group of Diameter, and RADIUS to provide a communication architecture for enabling IP-based mobile communications (*col. 1, lines 56-58*).

- **Regarding claim 34**, claim 34 is similar in scope to claim 11, and is therefore rejected under similar rationale.

- **Regarding claim 41**, claim 41 is similar in scope to claim 18, and is therefore rejected under similar rationale.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Publication No. US 2004/0002337 by Wheeler et al.

U.S. Patent Publication No. US 2003/0033518 by Faccin et al.

U.S. Patent Publication No. US 2002/0199104 by Kakemizu et al.

U.S. Patent Publication No. US 2004/0047348 by O'Neill.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luu Pham whose telephone number is 571-270-5002. The examiner can normally be reached on Monday through Friday, 7:30 AM - 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel L. Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Art Unit: 2137

Representative or access to the automated information system, call 800-786-9199 (IN USA
OR CANADA) or 571-272-1000.

/Luu Pham/
Examiner, Art Unit 2137

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137